REMARKS/ARGUMENTS

Claims 1-17 are pending in the present application. Claims 1 and 14 have been amended. Support for these amendments is found in the Summary of the Invention on page 3 of the Specification. Reconsideration of the claims is respectfully requested.

I. Telephone Interview

The Examiner is thanked for the courtesy of an interview in which the differences between amended claim 1 and **Alston** were discussed in detail. The Examiner indicated that he was reading the claimed logic circuit on add-on card 200. Applicant's representative pointed out that (a) reading card 200 as the logic circuit means that lines 206, 208, 212, and 214 are the interface circuit, which "interface circuit" does not include a regulator; and (b) reading power source selection circuit 210 as the interface circuit and integrated circuit 201 as the logic circuit means that only one power supply voltage is sent to the logic circuit, while the claims recite two separate voltages. No agreement was reached.

II. Allowable Subject Matter

The Examiner is thanked for the indication of allowable subject matter in claims 3-5, 8-13, and 15. The allowable dependent claims have not been made independent at this time, as Applicants believe that all claims should be allowed.

III. Objection to Claims: Claim 1

Claim 1 was objected to for the phrase "said regulator supplies provides". In response, the claim has been amended to remove this error. This objection is overcome.

IV. 35 U.S.C. § 102, Anticipation: Claims 14 and 17

Claims 14 and 17 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by **Alston** *et al.*, Add-On Card with Automatic Bus Power Line Selection Circuit, U.S. Patent No. 6,327,635 (December 4, 2001) (hereinafter "**Alston**"). This rejection is respectfully traversed.

The examiner states:

> With respect to claim 14 Alston discloses a method for supplying a computer logic circuit (Power Source Selection Circuit 210) with first and second inputs having first and second predetermined voltage levels (Figure 2 shows power supply 202 providing two different voltages on lines 206 and 208 for the add-on card), respectively, the method comprising: providing the computer logic circuit with the first input having the first predetermined voltage level based upon a first supply voltage (On Figure 2 the first supply voltage is supplied to the add-on card 200 via

> line 214); determining if a second supply voltage is present (Driver 302, Column 4 lines 35-37); providing the computer logic circuit with the second input having the second predetermined voltage level (One of the voltages provided to the selection circuit is selected among the voltages provided), wherein providing the second input comprises providing the second input having the second predetermined voltage level based upon both the first and second supply voltages if the second supply voltage is present (The voltages are tested and if both voltages are present the second (low voltage) is selected), and wherein providing the second input comprises providing the second input having the second predetermined voltage level based only upon the first supply voltage if the second supply voltage is unavailable (If only the second voltage is present than this voltage is selected having the second predetermined voltage).

Office Action dated July 24, 2006, pages 5-6.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

Claim 14, as amended, recites:

> 14. A method implemented by an interface circuit for supplying a computer logic circuit with first and second inputs having respective first and second predetermined voltage levels that are different from each other and from ground, the method comprising:
>
> providing the computer logic circuit with the first input having the first predetermined voltage level based upon a first supply voltage;
>
> determining if a second supply voltage that is different from the first supply voltage and from ground is present; and
>
> providing the computer logic circuit with the second input having the second predetermined voltage level,
>
> wherein providing the second input comprises providing the second input having the second predetermined voltage level based upon both the first and second supply voltages if the second supply voltage is present, and
>
> wherein providing the second input comprises providing the second input having the second predetermined voltage level based only upon the first supply voltage if the second supply voltage is unavailable.

Alston does not anticipate the invention recited in amended claim 1 because this reference does not disclose every element of the invention exactly as claimed. **Alston** does not provide the logic circuit with two voltages that are different from each other and from ground. Instead, the interface circuit of **Alston** receives two different voltages, but connects only one voltage, plus ground to the logic circuit.

An exemplary embodiment of the invention as recited in claim 14 is depicted in Figures 1 and 2 of the present application:

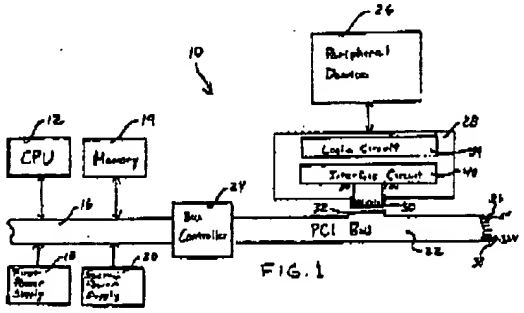


FIG. 1

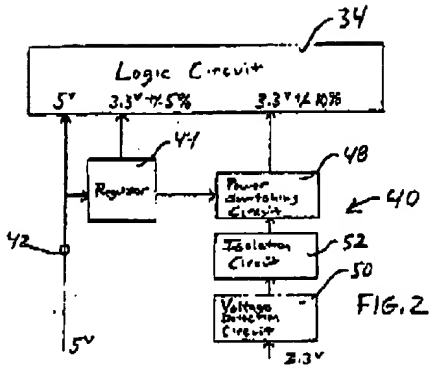


FIG. 2

In Figure 1, adapter card 28 is connected to a bus, in this case PCI bus 22. Interface circuit 40 is capable of receiving both a 5-volt power supply from first power source 18 and a 3.3-volt power supply from second power source 20. In this specific embodiment, the 5-volt power supply is always available, although the 3.3-volt power supply may or may not be present. Figure 2 gives a closer look at the interface circuit as it provides the 5-volt and 3.3-volt inputs to logic circuit 34. The 5-volt input is received through circuit 42 directly from the input pin connected to the first power supply. The 3.3 volt input can be received either through regulator 44 from the 5-volt input or from a combination of the 3.3-volt and 5-volt inputs, if both are available. The interface circuit can thus receive either one or two voltages as a power supply; it will always output two voltages to the logic circuit. This is reflected in claim 14 in the recitations of "*providing the computer logic circuit with the first input having the first predetermined voltage level*" and "*providing the computer logic circuit with the second input having the second predetermined voltage level*".

In contrast, **Alston** discloses the following in discussing Figures 2 and 3:

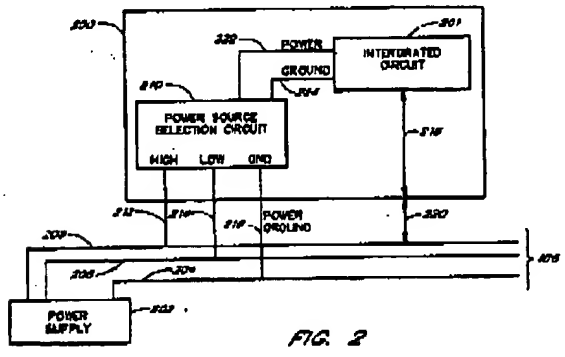


FIG. 2

FIG. 2 illustrates an add-on card that includes a power selection circuit according to the present invention. A power supply 202 of the computer is used to provide power to a pair of lines 206, 208 on the bus 106. ... A first line 206 carries a first potential, and a second line 208 carries a second potential. The line 204 is a ground potential line. The add-on card interfaces with the bus 106 by an edge connector (not shown) commonly used in the industry. ... In the preferred PCI implementation, the power supply lines 212, 214 can have one of three possible voltage configurations, depending upon system design: 5V only, 5V and 3.3V, or

3.3V only. In accordance with the invention, the card supports all three of these voltage configurations without the need to set switches on the card or other manual configuration steps. ...

The power source selection circuit 210 includes a voltage level output line 222 providing a predetermined output voltage to an integrated circuit 201 ... In the preferred PCI implementation, this output voltage is 3.3V.

Alston, column 3, lines 21-59.

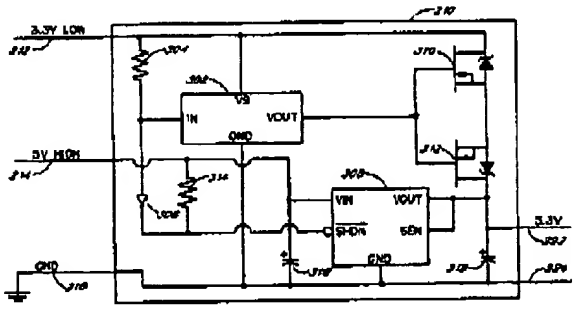


FIG. 3

FIG. 3 is a circuit diagram of the power source selection circuit 210 of FIG. 2. The power source selection circuit 210 includes a low voltage input line 212; a high voltage input line 214, a ground input 216, a ground output 224, and a voltage output line 222. The voltage output line provides the predetermined voltage level (e.g. 3.3V) regardless of which of the three voltage configurations is provided. ...

Alston, column 3, line 60-66, emphasis supplied.

The power source selection circuit 210 of **Alston** provides an interface between the logic circuit and the power supplies of this reference. However, although the power source selection circuit 210 may receive power from either or both of the two voltage levels, **Alston** only provides a single output 222, plus ground 224, to the logic circuit. **Alston** only supplies a 3.3-volt power supply to the logic circuit, while the invention recited in claim 14 supplies two non-ground voltage levels, regardless of whether it receives two different voltage levels or only one.

For this reason, **Alston** does not meet the claimed feature of *"providing the computer logic circuit with the first input having the first predetermined voltage level ... and providing the computer logic circuit with the second input having the second predetermined voltage level"* where the *"first and second predetermined voltage levels ... are different from each other and from ground"*. Therefore, the rejection of claim 14 under 35 U.S.C. § 102 (e) has been overcome. Since claim 17 depends from claim 14, claim 17 provides the same distinctions argued between **Alston** and the invention recited in claim 14. Consequently, it is respectfully urged that the rejection of claims 14 and 17 has been overcome.

Furthermore, **Alston** does not teach, suggest, or give any incentive to provide two different, non-ground voltage levels to the logic circuit, only a single voltage level. Absent the examiner pointing out some teaching or incentive to implement this modification to **Alston**, one of ordinary skill in the art would not be led to modify **Alston** to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify **Alston** in this manner, the presently

claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

V. 35 U.S.C. § 103, Obviousness: Claims 1-2 and 6-7

Claims 1-2 and 6-7 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Alston** in view of **Halim** *et al.*, Supply-Discriminating Supply-Adaptive Electronic System, U.S. Patent No. 5,514,951 (May 7, 1996) (hereinafter "**Halim**"). This rejection is respectfully traversed.

The rejection states:

> With respect to claim 1 Alston discloses an interface circuit (Power source selection circuit 210 of Add-on Card, See abstract) for supplying a computer logic circuit (Power source Selection circuit 210) with first and second inputs having first and second predetermined voltage levels ...
>
> However, Alston does not disclose expressly that said regulator supplies provides the second input having the second predetermined voltage level in a manner independent of said second power supply circuit in instances in which the second supply voltage is unavailable.
>
> Halim, however, discloses a system for supplying voltage to external devices, such as cards in personal computers. VCC 100 represents voltages supply by a personal computer having first and second predetermined voltages. The voltage regulator shown in figure 1 is formed of transistor 115, amplifier 120 and resistors R1 and R2; the regulator supplies an input having a predetermined voltage to IA VCC node 151.
>
> It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust Alston regulator to provide an input having the predetermined voltage level base on the voltages supply by a system as disclose by Halim; Halim's regulator could be used in connection with Alston invention to provide the second input even if when second voltage supply is unavailable. Since Regulators are known to maintain a constant voltage level, thus one would have envisioned using a regulator to cooperate with the second supply line to produce a second predetermined voltage regardless of the input voltages.
>
> The suggestion or motivation for doing so would have been to provide a second predetermined voltage that is different than any other input voltages supply to a load/card, for the purpose of meeting certain voltage requirements of the circuitry in the card, that would otherwise be damaged when a different voltage than a predetermined voltage is supplied.

Office Action dated July 24, 2006, pages 2-4.

Claim 1 as amended recites:

> An interface circuit for supplying a computer logic circuit with first and second inputs having respective first and second predetermined voltage levels that are different from each other and from ground, the interface circuit comprising:
>
> a first power supply circuit for providing the first input having the first predetermined voltage level in response to a first supply voltage;
>
> a regulator for generating an output having the second predetermined voltage level in response to the first supply voltage; and

a second power supply circuit for providing an output having the second predetermined voltage level in response to a second supply voltage that is different from the first supply voltage and from ground,

wherein said regulator and said second power supply circuit cooperate to provide the second input having the second predetermined voltage level in instances in which the second supply voltage is present, and

wherein said regulator provides the second input having the second predetermined voltage level in a manner independent of said second power supply circuit in instances in which the second supply voltage is unavailable.

The determination of "nonobviousness" is made after establishing the scope and content of prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the pertinent art. Graham v. John Deere, 383 U.S. 1 (1966). In addition, all limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 21 U.S.P.Q.2d 1031, 1034 (Fed Cir. 1994).

No proper *prima facie* argument can be made against the invention recited in claim 1 using the combination of **Alston** and **Halim** because neither of these references discloses or suggests providing two different, non-ground voltages to the logic circuit. The interface circuit of **Alston** can receive any combination of 3.3-volt and/or 5-volt inputs, but this interface circuit only supplies the logic circuit with a single voltage. **Halim** can receive either a 3.3-volt input or a 5-volt input and outputs only a 5-volt supply to the logic card. This is shown in Figure 1 of **Halim**.

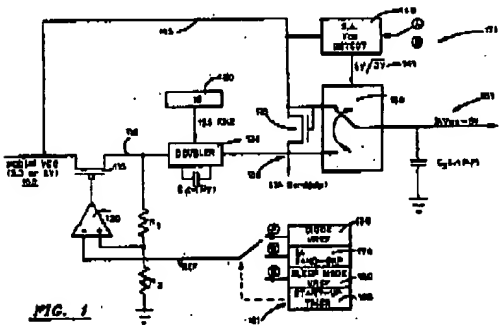


FIG. 1

On the left side of the figure, "*[m]odem VCC 100 for the IA can be either 3.3 volt or 5 volt as supplied by a system such as a notebook computer*" (**Halim**, column 3, lines 20-21). On the right side of the figure, the single output is labeled "*IAVcc=5v*". Clearly there is only a single output in this circuit.

As has been demonstrated, neither **Alston** nor **Halim** discloses or suggests that the circuit that provides an interface between the logic circuit and the available power supply(ies) would need to output two separate, non-ground voltage values. Thus, the references relied on neither disclose nor suggest the need to provide the logic circuit with both "*the first input having the first predetermined voltage level*" and "*the second input having the second predetermined voltage level*" and in which the two voltage levels "*are different from each other and from ground*". Because the proposed combination, when considered as a whole, does not disclose or suggest all of the features of claim 1 as amended, no proper *prima facie* obviousness rejection can be made against claim 1 as amended. Therefore, the rejection of claim 1 has been overcome.

Claims 2, 6, and 7 all contain features similar to those presented in claim 1 as amended. Therefore, the rejection of claims 1-2 and 6-7 under 35 U.S.C. § 103 (a) has been overcome.

VI. Objection to Claims: Claims 3-5 and 15-16

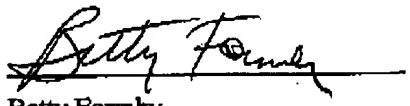
The examiner has stated that claims 3-5 and 15-16 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have demonstrated that independent claims 1 and 14 distinguish over the references relied on. Therefore, the objection to these allowable claims is now removed.

VII. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: September 28, 2006

Respectfully submitted,



Betty Formby
Reg. No. 36,536
Yee & Associates, P.C.
P.O. Box 802333
Dallas, TX 75380
(972) 385-8777
Agent for Applicants